APHIS – Plant Protection and Quarantine
California Department of Food and Agriculture
Daily Situation Report: Light Brown Apple Moth (LBAM)
September 1, 2007

Updates in red

Survey and Diagnostics Information:

Counties	Survey		Diagnostics	
	Number of Traps	Presumptive Positive	Confirmed Positive	
			Today	Total
Alameda	2,189	0	5	257
Amador	33	0	0	0
Butte	212	0	0	0
Calaveras	22	0	0	0
Colusa	27	0	0	0
Contra Costa	2,152	0	1	92
Del Norte	107	0	0	0
El Dorado	77	0	0	0
Fresno	808	0	0	0
Humboldt	91	0	0	0
Imperial	223	0	0	0
Kern	499	0	0	0
Kings	133	0	0	0
Lake	126	0	0	0
Los Angeles	6,504	0	0	1
Madera	195	0	0	0
Marin	852	0	1	19
Mariposa	53	0	0	0
Mendocino	28	0	0	0
Merced	294	0	0	0
Monterey	2,122	0	7	457
Napa	1,135	0	1	2
Orange	1,705	0	0	0
Placer	73	0	0	0
Plumas/Sierra	6	0	0	0
Riverside	1,181	0	0	0
Sacramento	1,531	0	0	0
San Benito	94	0	0	0
San Bernardino	1,189	0	0	0
San Diego	2,390	0	0	0
San Francisco	149	0	53	480
San Joaquin	756	0	0	0
San Luis Obispo	281	0	0	0
San Mateo	2,275	0	5	30
Santa Barbara	589	0	0	0
Santa Clara	3,092	0	0	11
Santa Cruz	3,395	0	40	6,392
Shasta	197	0	0	0
Siskiyou	298	0	0	0
Solano	1,379	0	0	3
Sonoma	618	0	0	0
Stanislaus	259	0	0	0

Sutter	*110*	*0*	*0*	*0*
Tehama	*60*	*0*	*0*	*0*
Trinity	*79*	*0*	*0*	*0*
Tulare	*705*	*0*	*0*	*0*
Tuolumne	*27*	*0*	*0*	*0*
Ventura	*541*	*0*	*0*	*0*
Yolo	*171*	*0*	*0*	*0*
Yuba	*50*	*0*	*0*	*0*
Total	*41,082*	*0*	*113*	*7,744*

- **Survey**
  - Survey teams continue to implement a rigorous detection and delimiting survey for the light brown apple moth (LBAM), *Epiphyas postvittana*, in 51 counties.

  - A total of 41,082 pheromone-baited traps have been deployed to date. Traps are placed in and around retail and production nurseries, at ports of entry, and in the open environment and are being inspected bi-weekly.

  - Visual inspections of all nurseries located within 1.5 miles from any traps with confirmed LBAM are conducted for the presence of any life stages.

- **Identification and Diagnostics**
  - Trapped moths are forwarded to the California Department of Food and Agriculture's (CDFA) Plant Pest Diagnostics Laboratory for the initial identification. All LBAM "presumptive positive" moths from each county are forwarded to the Agricultural Research Service (ARS) Systematic Entomology Laboratory (SEL) in Washington, DC, for confirmation. In counties where previous specimens have been confirmed by SEL, subsequent captures are identified by CDFA.

  - A total of 7,744 moths have been confirmed to date as LBAM. Most of the captures (99%), however, are from traps located in two specific geographical areas. The first area, representing 88% of all LBAM captures, encompasses southern Santa Cruz and northern Monterey counties. The second area, which represents approximately 11% of captures, includes contiguous portions of northwest Alameda, western Contra Costa, and northern San Francisco counties. The remaining 1% came from mostly single trap captures in Los Angeles, Marin, Napa, San Mateo, Santa Clara, and Solano counties.

  - LBAM immature life stages, including larvae and pupae have been found in a total of 33 nurseries, cut flower or greenery farms in Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara, and Santa Cruz counties. Infested nurseries have the option to treat and be re-inspected as part of the regulatory requirements.

<u>Operational Update:</u>

- **Technical Working Group (TWG)**
  - The TWG toured the infested region on May 16 and concluded with a two-day meeting on May 17-18 in San Jose, California. The TWG forwarded to

APHIS and CDFA recommendations designed to provide short and long-term plans to contain, control, and eradicate LBAM in California.

- **Incident Command**
  - A total of 203 personnel are on-site (110-Counties; 56-CDFA; and 37-APHIS) assuming various roles within the ICS structure.

- **Regulatory Actions**
  - CDFA, APHIS, and County personnel continue to conduct inspections and certification of host commodities in the quarantine areas as required by State LBAM regulations and by the Federal Quarantine Order.
  - To date, a total of 752 compliance agreements have been issued to establishments located within the quarantine area requiring regular inspections of all nursery stock and other host materials.

- **Trace-back and Trace-forward**
  - Trace-back and trace-forward investigations to determine the source and potential distribution of LBAM continue, including the inspection of nursery establishments.

- **Treatment**
  - Nurseries with host plants that are confirmed as infested with LBAM larvae or pupae have the option of treating with Chlorpyrifos or destroying infested plants.
  - To date, three ground applications of *Bacillus thuringiensis* (Bt) have been made in Oakley (141 properties) and Napa (71 properties).
  - Hand-applied pheromone applications of Isomate-LBAM (twist-ties) have also been made in Oakley, Napa, Danville, Dublin, San Jose, and Sherman Oaks.
  - Aerial applications of pheromone in Marina, Seaside, Sand City, Del Rey Oaks, Monterey and Pacific Grove are scheduled to begin on September 5, 2007.

Trade Update:

- APHIS informed trading partners of the LBAM finds in California. Additional reports were provided to Canada and Mexico in response to their requests for additional information.
- On May 24, Mexico suspended importation of certain LBAM host crops commodities – primarily fruits and nursery stock – from the quarantined counties in California and Hawaii and has required additional inspection and certification of commodities originating from outside quarantined counties.
- The Canadian Food Inspection Agency (CFIA) announced on Friday June 15 its LBAM requirements for host commodities exported to Canada. Details of the requirements are posted on the CFIA website at http://www.inspection.gc.ca/english/plaveg/pestrava/lbampbpp/lbampbppe.shtml

Communication and Outreach:

- A public meeting was held in the City of Monterey on August 29, 2007. Officials from Monterey County, CDFA, and APHIS provided information and fielded questions regarding the eradication plan, including the proposed aerial applications of

pheromone in Marina, Seaside, Sand City, Del Rey Oaks, Monterey and Pacific Grove scheduled to begin on September 5, 2007.

- Notices of Environmental Assessments (EA) are posted in local newspapers and APHIS website in preparation for the area-wide eradication program.

Background:

- On February 6, 2007, a private citizen near Berkeley in Alameda County, California, reported that two suspect moths had been captured in a blacklight trap on his property.

- In response, pheromone-baited traps were placed on March 1, 2007, in Alameda and Contra Costa counties. Trap inspections began March 7, 2007.

- On March 16, 2007, the ARS Systematic Entomology Laboratory (SEL) in Washington, DC, confirmed through morphological testing that the two samples submitted were, in fact, LBAM.

- APHIS and CDFA issued press releases on March 22, 2007, announcing the confirmation of LBAM in California. Also, APHIS issued a SPRO letter informing States and stakeholders of the LBAM in California.

- APHIS informed trading partners of the LBAM finds in California. Updated reports were provided to Canada and Mexico in response to their requests for additional information.

- CDFA established on April 20, 2007 a LBAM quarantine of at least 182 square miles in Alameda, Contra Costa, San Francisco, Marin and Santa Clara counties. The quarantine is expected to expand to include Monterey, Santa Cruz and San Mateo counties.

- APHIS issued a LBAM Federal Quarantine Order on May 2, 2007, requiring inspection and certification of all nursery stock and host commodities from eight counties in California, including Alameda, Contra Costa, Marin, Monterey, San Francisco, San Mateo, Santa Clara, and Santa Cruz counties.

- The light brown apple moth (LBAM), *Epiphyas postvittana*, is a native pest of Australia and is now widely distributed in New Zealand, the United Kingdom, Ireland, and New Caledonia. Although it was reported in Hawaii in the late 1800s, the LBAM find in California is the first on the US mainland.

- LBAM has a host range in excess of 120 plant genera in over 50 families, including nursery stock, cut flowers, fruits, and vegetables.

- LBAM could cause an estimated $133 million in crop damage and control costs if it spreads to agricultural production areas in California.